

CLAIMS

1. A power tool comprising:-
a housing;
a motor within the housing for actuating a working member of the tool, the motor having a stator and a rotor adapted to rotate about a first axis relative to said stator; and
5 first vibration attenuating means for attenuating vibrations transmitted from said stator to said housing at least in a direction substantially parallel to said first axis.
2. A tool according to claim 1, wherein the stator is displaceable relative to said housing in a direction substantially parallel to said first axis, and the first vibration attenuating means comprises biasing means for resisting said displacement of said stator relative to the housing at least in a direction substantially parallel to said first axis.
- 10 3. A tool according to claim 2, wherein said biasing means comprises at least one resilient member.
4. A tool according to claim 3, wherein said biasing means comprises a plurality of first said resilient members circumferentially spaced around said first axis and a plurality of second said resilient members offset from said first resilient members in a direction parallel to said first axis.
- 20 5. A tool according to claim 4, wherein said first resilient members are circumferentially offset relative to said second resilient members.
- 25 6. A tool according to any one of claims 3 to 5, wherein at least one said resilient member comprises at least one respective leaf spring.
7. A tool according to any one of claims 3 to 6, wherein the resilience of at least one said resilient member is adjustable.
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8. A tool according to claims 6 and 7, wherein at least one said leaf spring comprises a plurality of removable spring members.
- 5 9. A tool according to any one of claims 3 to 6, wherein the first vibration attenuating means comprises a plurality of interchangeable said resilient members having different resiliencies.
- 10 10. A tool according to any one of claims 3 to 9, wherein a plurality of said resilient members are connected between said stator and at least one support.
11. A tool according to any one of the preceding claims, further comprising resilient second vibration attenuating means for attenuating vibrations along three orthogonal axes transmitted from a working member of said tool to said housing.
- 15 12. A tool according to claims 10 and 11, wherein said second vibration attenuating means act between at least one said support and said housing.
- 20 13. A tool according to claim 11 or 12, further comprising a gearbox connected to said motor, wherein said second vibration attenuating means acts between said gearbox and said housing.
14. A tool according to any one of claims 11 to 13, wherein said second vibration attenuating means comprises a plurality of further resilient members.
- 25 15. A tool according to claim 14, wherein at least one first said further resilient member is connected between a bearing of said rotor and said housing.
- 30 16. A tool according to claims 14 or 15, comprising a plurality of said first further resilient members and a plurality of said second further resilient members, wherein said first and second further resilient members are circumferentially spaced about said first axis, and said first further resilient members are circumferentially offset relative to a said second further resilient members.

17. A tool according to claim 16, wherein said first and second further resilient members are arranged substantially perpendicularly to said first axis.
18. A tool according to claim 16 or 17, further comprising at least one third further resilient member arranged substantially parallel to said first axis.
19. A tool according to any one of claims 16 to 18, wherein at least one said further resilient member has adjustable resilience.
20. A tool according to claim 19, wherein at least one said further resilient member comprises a respective spring acting against a respective abutment having adjustable position.
21. A power tool substantially as hereinbefore described with reference to the accompanying drawings.